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C. A. Avery
W. D. H.
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THE
RACCOON LANDS,
GREENUP COUNTY,
KENTUCKY,

CONSIDERED WITH REGARD TO THE FITNESS
OF THE TRACT FOR USE FOR THE
PURPOSES OF

SHEEP FARMING.

WITH MAPS.

BY J. M. GOODWIN.

CLEVELAND, O.:
SHORT & FORMAN, PRINTERS AND STATIONERS,
1883.



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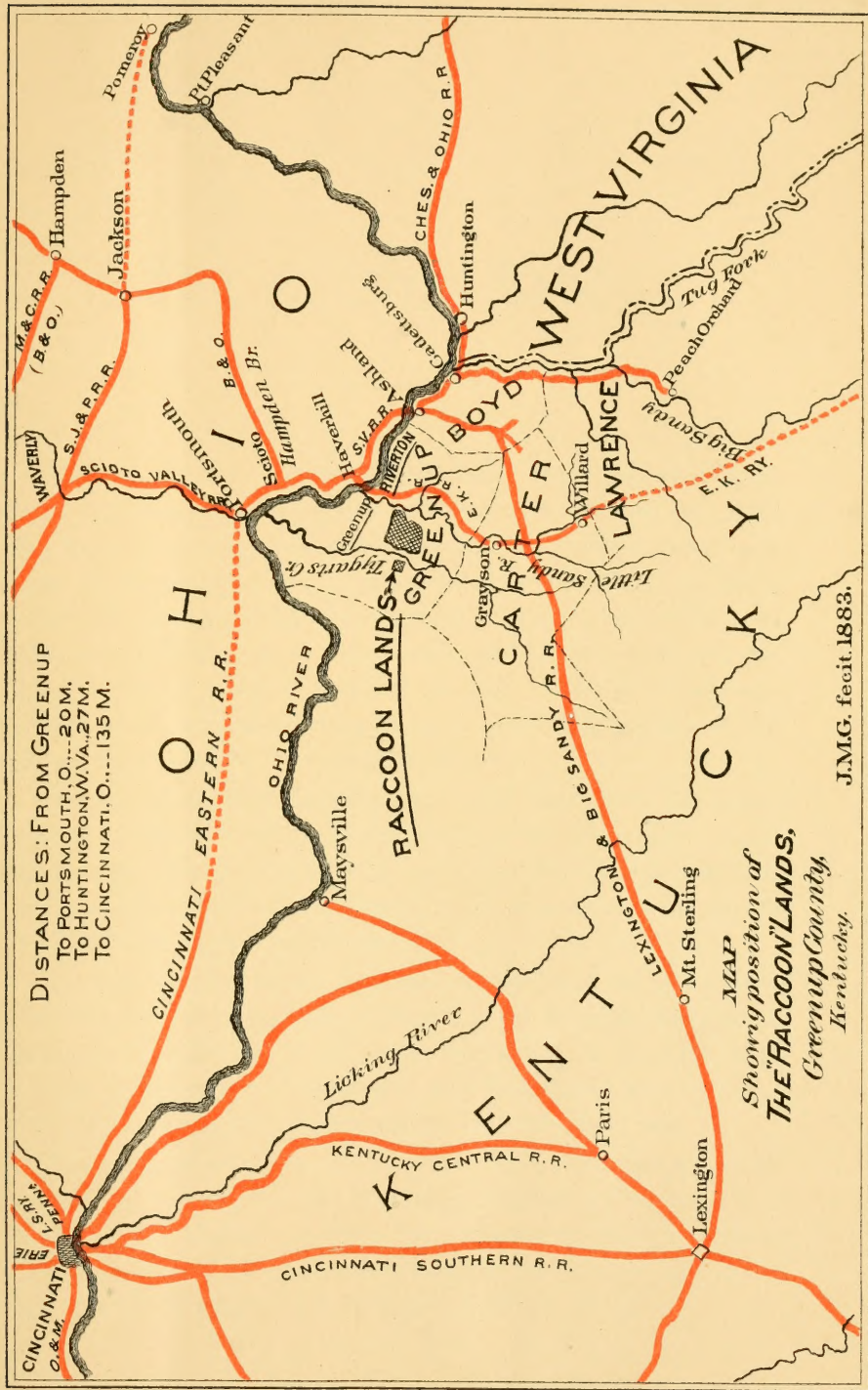
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IN EXCHANGE
JAN 5 - 1915





DISTANCES: FROM GREENUP
 TO PORTSMOUTH, O. --- 20 M.
 TO HUNTINGTON, W. VA. --- 27 M.
 TO CINCINNATI, O. --- 135 M.

MAP
 Showing position of
THE "RACCOON" LANDS,
 Greenup County,
 Kentucky.

J.M.G. fecit. 1883.

THE RACCOON LANDS.

To those who have informed themselves on the subject, we need present no argument in substantiation of the assertion that we here make, that there is at this day no enterprise open to the capitalist, who wishes to see his money used to the advantage of the world at large as well as to his individual profit, that is as certainly remunerative as one in which large tracts of land, in every respect well suited to the purpose and well situated with reference to markets, are, under judicious management, utilized for the purposes of sheep farming ; or of stock raising if circumstances render that the more desirable industry.

But as of those whom we address many will have given this subject little or no attention, we purpose presenting in the course of this pamphlet some statistical details and some applications of well established facts, and inferences drawn from such facts, going to show that our preliminary assertion is substantially correct.

As food and clothing are the prime necessities of life so the industries through which these are supplied are the principal industries of mankind. The industry of the agriculturist is that of the prime agent through whom the world receives food and clothing, and is consequently the most important, as it was the earliest, industry among men.

The agriculturists of the United States supply with food and clothing material, not only the people of their own country but millions of those of other nations. In 1880 they exported to foreign countries products valued at \$737,862,617, which sum was 89½ per cent. of the total value of all exports from the United States in that year.

The acreage under cultivation in this country is increased yearly, and the area devoted to stock raising and sheep farming has been greatly enlarged since a few years ago. At the same time the practice in agriculture, and in stock and wool raising is constantly improving; and simultaneously the standards of the markets for grains, stock and wool are persistently advanced.

Improvements in appliances for transporting and handling all these things have been demanded by an intelligent and interested public, and the inventive genius of the country has promptly met the demand in this direction. The cost of transportation by rail is now less than ever before, and will in the future be even less than it now is.

On our great through rail routes, admirable and wonderfully effective highways of commerce as they are, there is large room, still, for betterments of road, rolling stock, motive power, and terminal facilities; and, under the administration of the present generation of managers, engineers and specialists in railway science, we shall see them made very materially more effective, and rates consequently made lower than any yet permanently ruling. Population increases apace, and each generation is in advance of that before it, not only in numbers but in condition. New York and London call always for more, and for *better* food and raiment.

Our exports of beef to England and of "hog products" to several European countries, are, notwithstanding occasional obstructions offered by well-meaning but mistaken officials, increasing from year to year; and to these we shall have occasion soon to add large exports of mutton to England, in which country, owing to causes not yet thoroughly understood, sheep do not thrive as formerly; in several districts that have been for generations noted for their fine sheep and wool, sheep farming has been in great measure abandoned. Within a few years English capital has largely availed itself of the opportunities that certain of our territories offer for continuing here the business no longer certainly profitable in England.

At the same time many companies have been formed in this country for the purposes of stock raising and sheep farming, and large sums

have been applied to those objects, generally under judicious management and with good results. But there is no ground for believing that the business will be "overdone." Neither England, France, Belgium nor Germany produces meat in quantity sufficient for the supply of its own population ; and as means for transportation are increased and improved these countries will take more and more of our beef and mutton, as well as of our cured meats.

The demand for the products of the stock range and sheep farm, respectively, will more than keep pace with the increased and improved supply, and in the future the producer who puts into the great eastern markets either live stock, meats or wool, of superior quality, will secure net returns better than any heretofore realized.

Parties intending to make a specialty of stock and sheep-raising on a large scale have, since some years ago, almost without exception, located in some one of the Territories, where they have occupied public lands squatter fashion, or without paying rents, or have bought their lands at the very low price demanded by the Government.

The prospect of advantages to be thus gained has so absorbed the attention of these parties that they have ignored the existence of regions lying many hundreds of miles nearer the Eastern sea-board and offering, moreover, advantages of climate and soil not to be found combined anywhere else ; or if they have considered them at all, in this connection, have inadequately informed themselves as to important facts that are readily ascertainable ; or, if they have acquainted themselves with these facts, have entirely failed to properly estimate and apply them. While with good management and adequate capital a man may make money in stock farming in Dakota or Montana, or in Texas, or in sheep farming in New Mexico, the fact remains that with like management and equal capital he may make very much more money in the same business in Eastern Kentucky.

We unhesitatingly assert that there is in all North America no territory in which the business of sheep farming may be carried on as successfully and profitably as in certain portions of Eastern and Northeastern

Kentucky ; and that in all the region indicated there is no tract of land that is as well situated and in every way suitable to the carrying on of that business as is that certain tract, lying in Greenup county, Kentucky, known as "the RACCOON LANDS."

An experienced and judicious sheep farmer, fully informed as to the conditions necessary to a realization of the best possible results in his specialty, and about to select a situation in which to prosecute that industry, would seek a country having a climate mild and equable, in which neither long and very cold winters, nor long and very hot summers are known ; a country where snows are never heavy enough to bury the pasturage nor to lie on the ground more than two or three days continuously ; where violent storms and winds like the "Northers" of Texas are unknown ; where sheep, and even large stock, may find ample pasturage throughout the severest winter ; and where, consequently, hand feeding would not be necessary at any season except for the purpose of affording those variations of diet that are sometimes useful.

The country of his choice would not be subject to excessive rains at any season, nor to exhausting droughts in summer.

The soil would be generally sandy rather than otherwise, but of strength sufficient to the production of ample pasturage, and capable, when cultivated, of bearing good crops of grass, corn, oats and roots, without dressing.

He would know that sheep do not thrive best on low-lying, alluvial plains, nor on plateaus very much elevated above the sea level, nor in regions in which there are no breaks in the surface rock and no marked variations of soil and vegetation ; and would therefore avoid such situations and select a region in which upheavals, or other disturbances of the strata, or extensive denudations, have exposed the rocks of several formations ; a country having a diversified surface ; of which, moreover, quite steep hill-sides presenting themselves to every aspect, and ridges high enough to catch every breeze, form much the greater part.

In such a country, having the climate and soil before noted, flocks find variety of natural food. In the winter, and at night, they find

shelter in the valleys ; and at those times when heat and flies distress and annoy flocks confined to flat pastures they find comfort and safety on the hills and ridges.

He would have an ample growth of timber suitable for fencing, and for manufacture into building stuff, and there would be large areas of "woods pasture" for his flocks.

He would not have his "ranch" immediately alongside of a busy line of railroad, nor immediately upon any great navigable river, but in a quiet district within a few miles of both railway and river.

For convenience in shipping stock and produce, and receiving supplies, he would prefer to own a short branch railway extending from his headquarters to some trunk line by means of which he could reach any one of several great markets for sheep, lambs and wool.

As New York is the great market of the country for fat lambs and sheep, and as Boston is the great market for wool, he would like to be as near as practicable to those cities, and so situated as to be able to reach either of them by either of two or more lines of transportation so to command rates of freight lower than he could otherwise secure.

He would wish, also, to have unrestricted access to other cities, and to be situated as centrally as possible.

Everything else being equal he would of course select that tract costing less money than any other, but in estimating the actual value of a property would give due weight to the fact that if situated in a settled neighborhood of well-to-do farmers the land derives a certain value from its surroundings in that regard.

He would like to get his lands at a low price, certainly ; but for the advantage of having about him an industrious and law-abiding people, as for the further advantage of settling in a district where, as a consequence of prudent administration, the tax-rate is very low, he would be willing to make fair compensation.

Lands of his selection would be amply watered by wholesome streams and never-failing springs ; but no part of his territory would be subject to inundation by any overflow of the streams.

His flocks would have ample range on dry, clean, hilly ground, and good pasturage elevated above malarial influences.

Foot-rot, "foot and mouth disease," "fluke," "scab," and the ravages of the bot fly, (*æstrus ovis*), would be unknown on his lands; because in the fly season the sheep would avoid the winged pest by keeping to the breezy hill ranges: and the diseases would not exist simply because the conditions that give rise to those diseases would not exist anywhere on his property. The natural conditions would all be favorable to the health of his flock, and he would be careful to enhance the beneficial effects of those conditions by management such as experience has shown to be necessary to the most successful handling of large flocks. We shall presently outline the course of management that our experienced and judicious farmer would follow.

If our intending purchaser were to find that, in addition to the desirable conditions mentioned, the well-wooded hills of the property that is offered him contain ample deposits of excellent building stone, and of lime stone; and great stores of good coal readily accessible by the process of "drifting," which, as compared with that of "shafting," is simple and inexpensive; and that by a boring of moderate depth he can procure a brine of fair strength, from which by use of his cheap coal as fuel he can profitably manufacture salt, he would, no doubt, acknowledge himself thoroughly suited.

One would say that our sheep farmer prospecting for a location would hardly find, anywhere, a situation affording *every one* of the several desirable conditions above described; and, in fact, he could not find such a situation anywhere except in Northeastern Kentucky; and in all Northeastern Kentucky there is no tract that answers all his demands as fully and satisfactorily as do the RACCOON LANDS, of which we assert, simply, that they precisely meet every requirement that we have set forth, and possess every feature that we have suggested as desirable in a tract to be applied to the business in question.

Of the two maps accompanying this pamphlet one shows the position of the RACCOON LANDS in relation to lines of rail and water transporta-

tion ; the other is a map of the lands, laid down from the actual surveys, the green tint on which indicates areas covered by timber of the original growth ; the yellow tint shows woodlands bearing second growth, and the brown tint distinguishes cleared lands,—pasture and arable lands under fence.

The lands lie just south of the Ohio River, in Greenup county, Kentucky, and comprise, altogether, 10,902 acres or more, of which 9,842 acres lie between the Little Sandy River, on the east, and Tygart's Creek on the west ; and 1,060 acres lie on the west side of Tygart's Creek.

From the extreme eastern point of the lands, (near Little Sandy,) to the western boundary of the 9,842 acres, (on Tygart's,) the distance is about five (5) miles ; and from the extreme northern point to the extreme southern point of this part of the property the distance is about six (6) miles.

The 1,060 acre lot, on the west side of Tygart's, is separated from the main body of the lands by an interval of something more than a mile, and contains no cleared land. In view of these facts alone we should not consider this lot a desirable addition to the main body of the lands ; but as the outlying lot is covered throughout by a handsome growth of original timber, and is consequently a particularly valuable part of the property, we would take advantage of the offer that includes this with the other lands at one price per acre for the whole.

The town of Greenup, the county seat of Greenup county, lies on the Ohio River, 13½ miles, (as the river runs,) above Cincinnati.

Riverton, the northern terminous of the Eastern Kentucky Railway, lies above, and immediately adjoining Greenup.

The distance, by the highway, from the steamboat landing at Greenup to a central point of the Raccoon Lands is about six miles.

Argillite station on the Eastern Kentucky Railway is six miles out from Riverton, and from that station to a central point of the Raccoon tract the distance, by highway, is about three and one-half miles.

Argillite station is on the east side of Little Sandy River, as is also the town of Greenup, while the lands are on the west side of that stream ;

but there is a new and thoroughly built bridge across the river on each of the highways above indicated.

The Eastern Kentucky Railway extends from Riverton, on the Ohio River, southward to Grayson, the county seat of Carter County, 23 miles ; and thence to Willard, eleven miles further south.

Within three years this road, under arrangements already made, will have been extended to a connection with the Norfolk & Western, and East Tennessee, Virginia and Georgia system of railways, the lines of which lie along the great limestone valley that traverses uninterruptedly the States of New York, New Jersey, Pennsylvania, Maryland, Virginia and Tennessee, and forms a natural highway between the Northern and Southern States that is now occupied by a continuous line of railway extending from New York to New Orleans.

This connection will give shippers over the Eastern Kentucky Railway a route to the important new ocean shipping port of Newport News, in addition to the one that they now have by way of the Chesapeake & Ohio Railroad, as well as direct access by rail to the several seaports of Savannah, Ga., Charleston, S. C., and Wilmington, N. C., each of which will be in the near future a market and *entrepot* for the products of Northeastern Kentucky.

At a point between Grayson and Willard the Elizabethtown, Lexington & Big Sandy Railroad crosses, and makes connection with, the Eastern Kentucky Railroad.

The Lexington & Big Sandy road is a part of the main line of the Chesapeake & Ohio system which extends from Washington and Newport News to Cincinnati, Lexington, Louisville and Memphis ; and has connection with St. Louis *via* the Louisville & Nashville, and Louisville, Evansville & St. Louis roads.

By this route the distance from St. Louis to a first-class sea port, Newport News, is 100 miles less than that from St. Louis to New York by the shortest existing rail line.

The position of the Raccoon Lands is about 100 miles east from the point designated by the statisticians as the "centre of population" of the whole country.

This point is one mile south from the Ohio River, eight miles west by south from the heart of the city of Cincinnati, in latitude $39^{\circ} 04'$, and longitude $84^{\circ} 39'$; but about 53 *per cent.* of the aggregate population of the country is found east of the longitude named, and about 60 *per cent.* north of the latitude named.

The population of the states lying east from Ohio and West Virginia, and north from Virginia, including the District of Columbia, was in 1880 15,619,974 or something more than 31 *per cent.* of the aggregate population of the United States.

The county of Greenup, Kentucky, in which the lands in question lie, is very nearly central to that part of the United States lying east from the Mississippi River.

A straight line drawn, on an accurate map of the country, from Chicago to Wilmington, N. C., passes through Greenup County; as does, likewise, a similar line drawn from Toledo to Savannah, Georgia, or from Buffalo to New Orleans; or from St. Louis to Richmond; or from Portland to Memphis, or from Cairo, Illinois, to Philadelphia.

By an air-line the Raccoon Lands are distant from Boston about 650 miles; from New York 475 miles; from Philadelphia 425 miles; from Baltimore 340 miles; from Norfolk¹ 370 miles; from Wilmington, N. C., 400 miles; from Chicago 325 miles; from St. Louis 375 miles.

From Argillite station on the Eastern Kentucky Railroad, which is, as before stated, about $3\frac{1}{2}$ miles distant from a central point in the Raccoon Lands, actual "all rail" distances are as here given, viz:

By way of the Chesapeake & Ohio railroad.

To Newport News (ocean steamship port,).....	542 miles.
To New York, via Gordonsville & Baltimore,.....	724 "
To Boston (boat car transfer at New York City,).....	951 "
To Baltimore,.....	536 "
To Philadelphia,	634 "

At Newport News grain elevators and all the appliances necessary to the handling of freights of every kind are already provided, and this

place will within a few years be sought by exporters of grain and live stock in preference to any other Atlantic port.

From Haverhill station, on the Scioto Valley Railroad, on the north side of the Ohio River, seven miles from Raccoon Furnace, "all rail" distances are :

To New York, <i>via</i> B. & O. R. R., (Parkersburg route,)	...723 miles.
" " " <i>via</i> Erie Railway, (Salamanca route,)860 "
" " " <i>via</i> Lake Shore Railway, (Buffalo route,)	849 "
" " " <i>via</i> Pennsylvania Railway, (Pittsburgh,)	...742 "
" Boston, <i>via</i> Lake Shore, (Buffalo & Albany,)924 "
" " <i>via</i> Pennsylvania Railway, (New York,)	...969 "

From Lexington, Kentucky, a central point of the "Blue Grass" country, to New York *via* Cincinnati and the Lake Shore route, the distance is 951 miles; and by way of the Pennsylvania lines, 857 miles.

From Chicago to New York *via* Pennsylvania lines, the distance is 912 miles; *via* the Lake Shore route, 979 miles, and *via* the Baltimore & Ohio lines, 1,035 miles,

The Eastern Kentucky Railway Company, in association with the Scioto Valley Railroad Company, has commenced the construction of a boat car transfer between Riverton and Haverhill. With this in operation shipments from "Raccoon" for points north of the Ohio River would be made at Argillite station.

From the foregoing tables of distances we gather that stock from Raccoon shipped at Argillite and going *via* the Chesapeake & Ohio route, may reach Boston with no more travel than that borne by stock going from Lexington to New York *via* the Lake Shore route; that from Argillite to New York *via* the Chesapeake & Ohio the rail distance is 227 miles less than that from Lexington to New York *via* the Lake Shore, and 133 miles less than that from Lexington to New York *via* the Pennsylvania route; that the rail distance from Haverhill to New York *via* the Baltimore & Ohio route is 189 miles less than that from Chicago to New York by the Pennsylvania route, and 312 miles less than that from Chicago to New York by the Baltimore & Ohio route; and that stock from Raccoon destined for export may reach ocean shipping port with

no more than 542 miles rail transportation ; which is 370 miles less than that from Chicago to New York, and 315 miles less than that from Lexington to New York by the shortest line north of the Ohio River.

A line is now in process of construction from Wheeling down the Ohio River to Point Pleasant, and the Cincinnati Eastern is in progress from Cincinnati, *via* Portsmouth, to Point Pleasant.

With this new line in operation still another route, shorter than the existing "Pennsylvania" lines, will be accessible by shipments from Raccoon.

Raccoon is so situated that it is not dependent on any one route for transportation facilities. It will rank with the Freight Agents as a "competing point."

The Ohio River steamers afford an entirely practicable means for reaching those trunk lines which, except for the facilities afforded by the river, might be fenced off by intervening pieces of road.

This matter of a situation from which unrestricted access to any one of several rail routes may be had was named seventh in order in the enumeration, hereinbefore made, of the conditions that a sheep and stock farmer seeking a location would wish to secure.

Having shown how thoroughly well the Raccoon Lands are situated in this regard, let us see what claims to preference they have in the other directions specified.

As preface to the statements that he has to make concerning the climate, soil, mineral deposits, and the resources generally, of Greenup county at large and of the Raccoon tract in particular, the writer explains that during something more than four years—from the spring of 1866 to the autumn of 1870—he was a resident of the county named, engaged as engineer for the corporation now known as the Eastern Kentucky Railway Company, which company owns a large territory lying east and south of, and with one of its lines adjoining, the Raccoon tract ; and that he is well acquainted with the Raccoon property, having in his capacity as engineer, or in prospecting for mineral, visited and examined

every part of it. He has also made surveys and precise examinations in every part of Greenup county and in contiguous portions of each of the counties adjoining it, and feels warranted in claiming to have an entirely competent knowledge of the country of which he speaks.

Further, he assures his readers that he has carefully considered every statement made in this pamphlet, and believes that no one of them conveys anything that is not strictly in accordance with the facts in the matter to which it refers.

Mr. H. W. Bates, Vice President of the Eastern Kentucky R'y Co., has been resident manager of the affairs of that company since 1869, and is thoroughly informed on every point concerning which the most searching inquirer for facts regarding the climate, soils, crops, natural productions, and physical and social conditions of Northeastern Kentucky will be interested. Persons desiring to make independent inquiry concerning any of the matters just above mentioned may apply to Mr. Bates, who has kindly permitted this reference to him.

Mr. William Carnes, of Mercer county, Pennsylvania, (address, Sharon, in that county), a gentlemen of large experience as a stock breeder and handler of sheep and wool, has, by request of the writer, recently examined the Raccoon tract with special regard to its adaptability to the purposes of a sheep ranch and stock farm, and his indorsement of the representations herein made on that point is herewith given. (Appendix A).

Mr. Carnes made his examination in February, in order to observe the condition of the pasturage at the season during which it is at its worst, and when the country, generally, is seen under its least attractive aspect.

The writer made his latest examination of the property in March, 1883, when he rode over the tract for the purpose of viewing the timber now standing on it, and observing the condition of the fences and the farming lands and appurtenances generally.

He made at the same time careful inquiry into all matters affecting the title under which the tract in question is now held, and prepared an

abstract from the county records, a copy of which paper may be had by any interested person applying for the same. A certificate from Hon. W. C. Ireland, of Ashland, Boyd County, Kentucky, late Judge in the 16th Judicial District of the State, to the effect that the present owners have an indisputable title, is given herewith (Appendix B).

With the exception of the lot lying on the west side of Tygart's Creek, and containing 1,060 acres, (see map) which is part of a purchase made, by the then owners of the Raccoon property, as late as 1860, the tract now offered for sale is part of a territory of 32,000 acres, sold by the state of Virginia to James Hutchinson, by patent dated November 15th, 1786, and signed by the then Governor of Virginia, Patrick Henry.

The original patent is in the possession of the present owners of the Raccoon tract, to-wit: The Raccoon Mining & Manufacturing Company, a corporation chartered by the General Assembly of Kentucky, in 1869, with large authority to take, acquire and hold lands and mining rights; to build and operate railroads, to connect with any other railroads or to reach the Ohio River or any other navigable river of the State; and to build and operate steamers or other boats such as may be by the company deemed necessary for its uses.

A copy of this charter is given in Appendix C.

The charter and franchises of the company will pass with the fee of the property if desired.

The company was organized under the charter, March 25th, 1870, with five corporators; who, having previously owned the Raccoon tract, and operated the same as a furnace property, conveyed the lands and appurtenances to the chartered company.

The fee of the property thenceforward was, and is now, in the corporation, all the stock of which is now held by three persons.

E. F. Dulin, Esq., of Greenup, was elected President of the company at its annual meeting of December 21, 1872; and has ever since been, and now is, the President of the company.

The stock of the company represents a capital of \$124,000, in shares

of \$100 each. The lands and appurtenances were at the outset capitalized at \$100,000.

Parties purchasing the property at this time may do so without incurring any obligation to continue the company organization, if they prefer another course; but the franchises are valuable, more so now than ever before, and are well worth the small expense necessary to the maintenance of the corporation to which they were granted.

The initial point of the survey of the original Hutchinson Patent of 32,000 acres, is at the northeast corner of the Richard Graham Patent of 80,406 $\frac{1}{4}$ acres, at "12 White Oaks." (See map.)

From that point the line ran, S. 45° E., 3 $\frac{9.5}{10.0}$ miles; thence, N. 45° E., 6 $\frac{1}{4}$ miles, to a point far to the east of the stream now known as Little Sandy River; thence, N. 45° W., nearly eleven miles to a point far west of Tygart's Creek.

The western boundary of the tract was a broken line, coming back, eastward and southward, to a point in the north line of the Graham lands, something more than one mile northwest from the point of beginning, designated on the map as the "Black Oak Corner."

The original patentee sold the tract to David Trimble, and about 1834 Trimble, with two partners, built on the property the furnace then named, and ever since known as, the "Raccoon Furnace;" and began making pig iron, and, as the practice then was, salt kettles, potash kettles, and other castings; drawing their supplies of ore, charcoal, and limestone, from the lands about the furnace.

They sold considerable areas off the tract, and succeeding owners have done likewise, till now only about 9,842 acres of the original 32,000 remain in the tract lying about the old furnace. As before mentioned, there is a lot of 1060 acres lying west of Tygart, that belongs to the present "Raccoon" Company.

According to recent surveys the company owns, in the aggregate, 10,902 acres of land.

Of 9,842 acres of this land Trimble and his successors have had actual possession, continuously, for nearly fifty years.

By Kentucky law a continuous occupancy, under claim of title, for thirty years, cuts off *all* other claims whatever.

If there were no recorded title the possession makes a title. But in this case the title of record is full and perfect, the chain extending down from 1786.

The lands included in the 1060 acre lot have been uninterruptedly held by owners of the Raccoon property since May 5th, 1860.

In a deed of March 25th, 1870, the Raccoon tract, proper, is described as "bounded by the Laurel, Buffalo and Argillite tracts; and the farms on Tygart's and Hood's creeks, and by the farms on Sandy, Raccoon and Alcorn; and by "the tract sold to Keuborth."

The boundary of the tract sold to Keuborth (see map) is exactly defined by the deed to Keuborth, dated June 30, 1868: Recorded in Book P, page 541, Greenup county records.

The line along the "Laurel" lands, now owned by Joshua Kelley, is part of one of the lines of the original Hutchinson Patent, as is also one of the lines between Raccoon and the "Buffalo" lands, now owned by John Armstrong.

The lines between Raccoon and the Buffalo and Argillite tracts, respectively, have been fixed by a method prescribed by the laws of Kentucky, known as "processioning." Under this process a board of three "processioners," of which the County Surveyor for the time being is, *ex officio*, one, is, on petition of a party in interest, appointed by the county court to survey and report upon any lines an official establishment of which is desired by such party. This board views the lines in question, takes evidence on the ground, traces old marked lines, and finally establishes and marks out the ascertained boundaries. The report of this board is made in writing to the Court ordering the "processioning," and is filed to await objections. In absence of objections the report is approved, and the lines marked as aforesaid are thereby established. And, in any case, the lines indicated by the report and the record of the survey, made after due notice to all parties interested, are, after the filing of the report, *prima facie* the proper lines.

On application of the then owners of the Raccoon property the tract

was processioned during the winter of 1859-60, and the report of the board was filed in the Recorder's office, April 2d, 1860.

The line between the Raccoon lands and the Argillite tract, owned by the Eastern Kentucky R. R. Co., was surveyed and marked out anew by a board of processioners, in the winter of 1866-67.

Nothing appears to show that there was any controversy between the parties interested, as to position of the lines in the cases named. The object in each case was to have the lines exactly defined.

The more recent surveys, above spoken of, developed no claim adverse to the maintenance by the Raccoon Company of the lines shown by the map herewith. But, notwithstanding the fact that there is no controversy concerning any line of the property, the company will, for the satisfaction of a purchaser desiring such further definition of the lands, make an entire re-survey and new map of the tract, and sell and warrant by the lines of such survey and revised description.

Of the 9,842 acres lying east of Tygart's Creek about 800 acres are cleared lands, mostly fenced and in good condition for farming purposes.

On the accompanying map the farming lands, and timber and second growth, are shown by distinguishing colors.

A body of about 450 acres of cleared land lies along Raccoon Creek, on which the old Raccoon Furnace is situated. Other bodies, of from 20 to 100 acres each, lie on the watersheds of Alcorn, Oldtown, and other creeks and runs.

Raccoon and Alcorn creeks have each a course of about four miles, and derive all their waters from the springs and drainage of the Raccoon tract.

Considered with reference to watersheds, the tract east of Tygart's Creek is made up of four natural divisions, viz: the watershed tributary to Tygart's Creek; that tributary to Alcorn Creek; that tributary to Raccoon Creek, and that from which the waters flow into Oldtown Creek and Clay Lick.

Of these the Alcorn division is somewhat the larger, but in actual acreage the several divisions are practically equal.

In the management of the property as a sheep and stock farm each of these natural divisions may be very conveniently maintained as a "range" separate and distinct from the others.

The Alcorn division, about 2,600 acres, is almost entirely timber land.

On something more than 1,300 acres of this division the original growth of timber is standing, intact.

From the other 1,300 acres most of the larger timber has been removed. Under a contract with the Raccoon Company a lumbering firm put saw-mills into this tract in the winter of 1881-82. They were to take out all the trees of fourteen inches, or more, in diameter. They built a very good wooden tramway (shown on map) on which they hauled their lumber to Little Sandy River, at a point near the mouth of Alcorn Creek, whence they made shipments by barge to Cincinnati, Huntington, and other points on the Ohio.

From March 1st to about June 15th, and at times in the winter months, Little Sandy is navigable by large barges from Argillite to its confluence with the Ohio.

The firm in question built a store-house and several dwellings for their men at and near their principal mill (see map). They ceased operations in August, 1883. The tram-road, as far as it lies on the Raccoon lands, and the buildings aforesaid, are, by the terms of the contract, now the property of the Raccoon Company; as are, also, all the timber and logs remaining on the said tract on Alcorn at the time of the close of operations.

The tram-road cost about \$300 per mile; about \$125 per mile for ties, rails and track laying, and \$175 per mile for grading, trestling and bridging.

The trestling and bridging will be serviceable for several years to come, but for continued operations new ties and rail-stuff will be needed. The right-of-way through lands outside of Raccoon, on the

route now occupied, may be had at any time at entirely reasonable rental.

The buildings above spoken of are very plain, board structures, but nevertheless afford comfortable and ample accommodations for several families.

There are also stables and sheds sufficient for the stalling of a large number of working-cattle, and the storage of hay and feed for them.

The territory on which the firm in question operated still carries merchantable timber enough to pay the cost of clearing up and putting in grass the entire area that now lies in that rough and brush-encumbered condition in which a lumbering gang usually leaves its field of operations.

One crop of corn from this new land will more than pay for the land and the cost of clearing.

At the head, and along the valley, of Oldtown Creek there is a large area of original timber, and north of the furnace there are two smaller lots of like timber.

In the tract east of Tygart's Creek there are about 2,000 acres, altogether, of original timber, intact; and the 1,060 acre lot west of Tygart's is all under the original growth. A detailed description of this timber, and an estimate of its value are given further on.

The bed of Raccoon Creek at the site of the furnace is about 125 feet above low water-mark at the mouth of Little Sandy River, and the tops of the highest ridges in the vicinity of the furnace are about 425 feet above the base named, or 300 feet above the bed of the creek.

Draw on the map a continuous meandering line dividing equally the space between the heads of the several branches of Raccoon Creek and those of Clay Lick, Oldtown Creek, Hood's Run and Alcorn Creek, respectively, and you have marked part of the course of the main ridge of the tract.

A similar line drawn between the heads of Alcorn Creek and those of Buck Run and Nicholl's Branch gives the course of another part of the main ridge. The line of Keuborth's land is another ridge-line.

Lateral spurs from the main ridges are very numerous. Much the greater part of the surface of the tract is made up of ridges, spurs, and their quite abrupt slopes.

The valleys of the larger creeks, however, afford a large aggregate area of plane, meadow-like land, very fertile under cultivation, but not more so than the slopes, from which, indeed, the soil of the bottom lands is derived, having been carried down from the slopes by gravitation.

The rocks of the Raccoon tract are those of the coal measures of Eastern Kentucky. These rocks have an aggregate thickness of about 900 feet. They rest on the sub-carboniferous limestone, or, where that is wanting, on the lower carboniferous sandstone and shale, and decline from west to east at the rate of about 27 feet per mile, without any considerable "disturbances," although there are considerable variations in the thickness of the members respectively.

The sub-carboniferous limestone varies from 0 to 100 ft. in thickness, and in Greenup county is in many places wanting entirely. There is no trace of it at the mouth of Little Sandy River, but on Tygart's Creek it is from 80 to 100 ft. thick. It rests on the Waverly sandstone formation, which has a thickness of 400 feet in Greenup county.

On Tygart's Creek the top of the Waverly sandstone is about 216 feet above the "low water mark at mouth of Little Sandy" base. At the mouth of Little Sandy it is about 20 feet above that base. The Waverly sandrock is a fine building stone and has a first rate reputation as such. A section of the rocks of Raccoon, commencing on the Waverly as a base, shows: (*a*) sub-carboniferous limestone, thin where not entirely wanting; (*b*) sub-conglomerate shales, about 50 feet thick, in which is a thin vein of coal; (*c*) fire clay, 4 to 6 feet thick; non-plastic, of fine quality; largely used for making fire-brick at Scioto and elsewhere; (*d*) conglomerate formation; coarse sandstone; "pebble rock;" varying in thickness from 1 to 100 feet; (*e*) shale series, 60 to 100 feet thick, in which are several veins of iron ore and a vein of valuable coal (No. 1); (*f*) sandstone series, from the shales to top of hills, in which are two

veins of iron ore and two of coal (Nos. 2 and 3, respectively), and a stratum of refractory sandstone, known locally as "hearth rock," heretofore much used for the crucibles and hearths of blast furnaces.

About 100 feet below the general level of the hill tops there is a stratum of friable sandstone about 20 feet thick, readily disintegrating where the edges are exposed to the weather.

The crumbling away of this rock results in the maintenance of that desirable equable slope of the face of the hill generally prevalent on the Raccoon tract.

In some parts of the county where this stratum does not occur the hill-sides are precipitous and consequently useless for farming purposes.

Coal No. 1, above named, is found in the bed of Raccoon Creek within a few rods of the furnace, and has there a thickness of 30 inches, as developed by recent examination during which some 50 tons were mined.

In his report of the geology of Greenup county, A. R. Crandall, Assistant State Geologist, says of this coal: "From its wide range and its quality it will prove one of the most valuable in Eastern Kentucky. * * * So far as developed it has a local uniformity which promises to make mining easy and profitable. * * At Raccoon furnace it is 30 inches thick. * * * This coal is no exception to the general rule as to variation in quality at different points. It ranks with the best coals, however."

The coal designated in the above named report as "Coal No. 1," is equivalent to the block coal mined in Mercer county, Pennsylvania, and in the vicinity of Youngstown, Ohio, designated in the Pennsylvania Reports as the "Sharon" coal, and in the Ohio Reports as "Coal No. 1." It is widely known in the markets as "Brier Hill" coal. In Chicago it has received the name of "Erie" coal. In that market it commands a price about 25 per cent. higher than that of the best Hocking Valley coals.

But, as Mr. Crandall says, the question of the relation of the natural divisions of the coal measures found in Kentucky to those found in

localities widely separated from that field, "may be left for future consideration." The fact remains that the No. 1 coal found at Raccoon "ranks with the best coals." It has been traced over about 5,000 acres of the tract.

Coal No. 2 is of less importance than No. 1. It is, however, of workable thickness on the Raccoon lands, and of very good quality. Greatest thickness 30 inches; specific gravity 1.3; volatile combustible matter 34.6; fixed carbon 55.25; Ash 4.8; sulphur, 1.4. Strictly "average" specimen of the vein.

Coal No. 3, at Raccoon called the "Top Hill" coal; generally known as the "Turkey Lick" coal; is quite uniformly three feet in thickness, with a thin "parting." It is a good domestic coal. Specific gravity, 1.3; volatiles 34.96; fixed carbon 55.54; ash 5.4; sulphur, 1.6.

Coal No. 1 properly mined would yield not less than 3,500 net tons to the acre, and has qualities that will enable it to compete successfully with other coals in the Cincinnati market. To convey this coal to water navigable by large barges, a tramway of only about two miles in length would be needed, which road would have a continuous and regular descent from the mine to the little Sandy River. We may reasonably estimate the coal in question to be worth a royalty of six cents per ton, at which rate it represents a value of at least \$210 per acre.

Of the very valuable cannel coal found in several places in Greenup county, a three foot trace has been discovered on the Raccoon lands, but no development made.

The ores of the tract have for many years been worked at Raccoon furnace, yielding iron of an excellent quality, but in the present view of the property they are not considered as of appreciable value.

The old furnace stack is considered of no value except as containing a large quantity of good building stone.

The blowing engine and boilers remain in place as used when the furnace was last in blast, and are, apparently, still fit for service.

The manager's house, standing near the furnace, has been continuously occupied by persons in charge of the property, and is in good

condition. A "store" building near it is in fair condition for occupation.

The position of each of a considerable number of log houses standing on the tract, is shown on the map.

Several of these houses are now occupied by tenants-at-will of the company. Most of them are in fair condition. Parties purchasing the property for use as a sheep farm would find these houses to be sufficient, with some repairs in the way of roofing, for the accommodation of their employees for some years to come.

In a country in which there is a range of elevation as considerable as that noted above as existing at Raccoon one may expect to find, other conditions being favorable thereto, a corresponding variety in the forest growth; and here we have, accordingly, a thrifty growth of each of many kinds of valuable timber trees.

On the crests of the ridges, and on the higher "knobs," the large, straight, smooth-barked yellow pine grows to perfection.

The chestnut-oak, valuable for its bark as well as for its timber, occupies a belt just below the pines. In the heads of the hollows the yellow poplar, of very large and handsome growth, is found in groups.

Below the chestnut-oak stand the white-oak, pin-oak and post-oak. The chestnut, hickory, linden, ash, elm and sycamore range below the oaks, in quite regular succession as named. The sugar maple is plentifully found, as are also the less valuable buckeye and beech. This is the original timber. In the second growth the hickory and oak predominate, but there are large groves of second-growth pine, which under the care of an experienced forester will be, within a few years, immensely valuable.

Much of the second growth is already more than 20 years old; and here the growth is rapid, while owing to the character of the soil and the lay of the land the timber made is compact and firm.

Of "bending stuff," for carriage makers' use, the hickories offer an almost endless supply.

Parties who have operated largely in lumbering on lands adjoining

Raccoon, and who have lately visited the Raccoon lands, have examined the subjoined estimate of the timber that may be got off the 2,000 acres of original growth aforesaid, and say that the actual yield will be in excess of the estimate.

The 2,000 acres will afford, per acre :

Of oak, 'car-timber, bill-stuff and plank	4,000 ft. B. M.
Of yellow-poplar boards, etc., for agricultural machine works	1,500 ft. "
Of hickory for wagon and buggy-stuff	1,000 ft. "
Of "seconds" lumber, of various kinds	2,000 ft. "
Of railroad ties, hewed	25
The oak stuff is worth, at Dayton, Ohio, for instance...	\$27 00 per M.
The poplar	26 00 " "
The hickory	25 00 " "
Let the cost of logging and sawing be per M.	\$6 50
Hauling per tramway to Little Sandy	1 00
Boating to Haverhill	2 00
Hauling to cars (about one mile)	1 00
Assorting and hauling, generally	75
Insurance and incidentals	1 00

And the cost on the cars at Haverhill is.....\$12 25

With the rate of freight from Haverhill to Dayton, 9c. per 100
lbs., and rating all stuff at 5,000 lbs. per M. the freight
charge is, per M. 4 50

Total\$16 75

The 4,000 ft. of oak at \$27	\$108 00
The 1,500 ft. of poplar at \$26	39 00
The 1,000 ft. of Hickory at \$25	25 00
6,500 ft.	\$172 00
Cost of 6,500 ft. delivered at Dayton	108 87

Net proceeds, per acre, on above stuff.....\$ 63 13

The 2,000 ft. "seconds" are worth, net, at the mill about \$1 per M.	2 60
The 25 ties are worth 40c. each at the Ohio River, \$10 00; less hauling, \$3 50, and hewing, \$2 50	4 00

Thus we have net proceeds per acre.....\$ 69 13

At this rate the 2,000 acres represents a net value of \$138,260.

After some 600 acres of the 1,300 acres, before mentioned, of the Raccoon tract had been about two-thirds cut over, leaving everything under fourteen inches in diameter, the actual yield had been 766,700 ft. of poplar, and 1,533,000 ft. of oak. At this rate the entire yield was somewhat greater in value than that named in the estimate.

The yellow pine on the same tract will *net* about \$3,000 additional, and we have not touched the chestnut, ash, elm, linden and sycamore, each of which has a well established market value, and is in large demand.

The railroad freight rate named is that actually paid by recent operators.

Better terms may now be had. Or by hauling the lumber to Argillite all-rail transportation is to be had to Dayton and other like points, the cost of which would be but little, if at all, greater than that by the routes heretofore used.

The marketing of this lumber at a point distant from the place of production, and not directly accessible by rail or river, renders necessary the employment of agents who, under simpler conditions, would not be needed, and of course increases labor and risks of several kinds; but the net proceeds of the more complicated transaction are much better than those to be realized through sales to middlemen.

Fair to good oak by the boat-load is worth \$16 to \$18 per 1,000 ft., at Cincinnati, on board boat. Poplar, \$20.

Pine dimension stuff at Huntington, \$24 per M.; plank \$18.

Dimension pine is worth \$19 to \$20 per M., on boat at Greenup.

The lot west of Tygart's Creek carries timber similar to that specified as found on the main tract, but will not yield quite as much per acre. With a railroad in operation along Tygart, however, the value of the timber on the west lot will be as great, area for area, as that on the east tract; and such a railroad will within a few years be built, either as

an extension of the Scioto Valley road, from Portsmouth, or as a branch of the road that is to occupy the south bank of the Ohio from Ashland to Covington, opposite Cincinnati.

Of the 9,842 acres east of Tygart's there are, as we have seen, 2,000 in original timber, 1,300 partially cleared of large timber, and 800 rated as farming lands; leaving about 5,742 acres under second growth.

On certain parts of this last named territory the growth should be slashed, and burned on the ground, and the land seeded with pasture grasses.

Much the greater part of it, however, has now a crop of thrifty trees, and under the care of the forester will soon begin to yield marketable timber.

Almost all the territory not rated as farming lands affords excellent range for stock.

The soil of the Raccoon tract, derived as it is from the coal measure rocks, is a sandy loam, produced by the mingling of the clayey loam coming from the shales with the sandy material coming from the superimposed sandstone series. The result of this admixture is a deep, dry soil, containing an unusually large proportion of potash, and capable of producing, for several successive years, without the aid of fertilizers, good crops of tobacco, or of corn and the other cereals.

Excellent pasture grasses of several kinds grow spontaneously everywhere on the tract, and the cultivated lands produce heavy crops of hay, four tons to the acre being a not unusual yield.

The tract, and each natural division of it, is thoroughly well watered, and in the very dryest seasons stock on any part of the land can with but little travel reach good drinking places.

Greenup county is in about $38^{\circ} 30'$ N. latitude. The mean annual temperature is 55° Fahrenheit. The annual rainfall is from 48 to 55 inches.

Low water mark at the mouth of Little Sandy River is 485 feet above

tide and 88 feet below the surface of Lake Erie. The valley of Raccoon Creek at the furnace is about 600 feet above tide and 27 feet above the level of the surface of Lake Erie.

Chautauqua Lake surface is 1297 feet above tide and 724 feet above Lake Erie. The elevations above tide of several points, selected as fairly indicating the altitude of the general surface of the district immediately about them are, respectively, as follows :

Point about 80 miles southwest from Cleveland, and 7 miles east from Galion, Ohio, 1,373 feet.

Point on line of New York, Pennsylvania & Ohio R. R., near State line between Pennsylvania and New York, 1,547 feet.

Plateau lying about 30 miles south from Lake Erie, east of a line drawn south from Cleveland, 1,100 to 1,200 feet.

Low water mark at Pittsburgh is 699 feet above tide ; so the Ohio River falls 214 feet in its course from Pittsburgh to the mouth of Little Sandy.

As indicated by the figures given, the valley of Raccoon Creek at the furnace lies 773 feet lower than the country just east of Galion, Ohio ; and 550 feet lower than the average level of that portion of the "Western Reserve" above designated.

Situated as it is with regard to latitude, altitude and geological position, the Raccoon tract enjoys the happy results of a combination of favoring influences hardly to be found elsewhere. Certainly no such combination is to be found in any district as well situated as Raccoon is, its position in relation to markets and means of transportation, and the political and social status of the country around it, being considered.

The climate of Greenup county is equable and temperate. Summer heats are never excessive, and although there are occasional cold "snaps" in winter they are always brief, and, so far from being of injury to anything, are distinctly of benefit in various ways.

Snow seldom falls to a depth of more than an inch or two, and rarely lies on the ground for more than a few hours.

Thousands of cattle, horses, mules, sheep and swine winter in the open fields and woodlands without artificial shelter of any kind, and with only such food as they find for themselves, and come out in the spring in good condition. This is especially the case with sheep, many flocks of which pass the entire winter in the woodlands. Their lambs dropped as early as in the latter part of February are well grown and in good case for market at a time when, in middle Ohio and regions in about that latitude and altitude, very young lambs are staggering about in sleety and sodden fields.

Mr. A. C. Van Dyke, of Greenup, when operating "Buffalo" furnace some years ago, bought 40 sheep, for which he paid \$40. They ranged on the lands adjoining Raccoon, taking care of themselves entirely. They were never fed and never "rounded up," except for shearing. Each year a liberal draft was made on the flock for lamb and mutton. The number thus killed in a period of ten years aggregated about 550. At the end of ten years from the purchase, Mr. Van Dyke sold the flock (number unknown) in a lot for \$400, and during the ten years had sold wool to the amount of \$1,970.

The sheep were of the kind commonly found in Greenup and the neighboring counties; a mongrel race, but with well shaped and large bodies, carrying good fleeces of a wool much above the medium in the several qualities desirable in that staple. The animals are very hardy, and disease among them is practically unknown in this region.

Mr. Van Dyke's experience is given as a perfectly fair indication of the suitableness of the climate, soil, natural vegetation and other conditions found in Greenup county, to the peculiar wants and habits of the sheep. The writer has received from several residents of the county statements equally as satisfying on this point, and he knows from personal observation that the conditions mainly important in this connection do exist at Raccoon.

Greenup county, with an area of about 240,000 acres, had in 1880 a population of 13,371; white, 12,932; colored, 439; native, 13,131; foreign-born, 240. Natives of Germany, 155; of Ireland, 37; other foreign-born, 48.

Of immigrants from Virginia there were 804, and from Ohio 1,291.

The improved lands aggregated some 53,550 acres, or about 22 per cent. of the area of the county, the assessed value of which, including buildings, etc., was \$1,365,438, or an average of about \$25 50 per acre. The assessed value of real estate in the county was \$1,607,069; of personal property, \$500,575; aggregate, \$2,107,614.

The net bonded debt of the county was \$33,155; (since reduced) the floating debt, \$10.

In 1880 the taxes levied were, State, \$9,590; county, \$12,944; city, town, and school-district, \$1,682; total, \$24,216, or about \$11 50 per \$1,000 of assessed value.

In Kentucky, as a State, the rate per \$1,000 was \$14 83; in Massachusetts, \$15 35; in Ohio, \$16 80; and in New York, \$21 26.

Corporations in Kentucky pay no taxes except on property held by them.

The property of a corporation is assessed for county purposes by the assessor of the county; an elective officer.

Lands are commonly rated at about one quarter of their actual cash value.

The corporation lists its property in a report to the Auditor of State, who bases his valuation of it upon the report of the county assessor for the current, or previous, year.

The state tax is uniformly 45½ cents on \$100 of value; 20c. of this goes to the maintenance of the State government; 25c. to support of common schools, and one-half cent to the free agricultural college of the State.

The State tax paid by the Raccoon Company for 1877 was \$101 25; for 1878, \$76 72; for 1879, \$81 90; for 1880, \$91 00; for 1881, \$91 90, and for 1882, \$118 00.

The county tax for 1882 was 84½c. per \$100; of this 25c. was special levy to pay off county debt, and about 16c. a special levy for bridges.

The county tax for five years has averaged about 50 cents per \$100

of value, and Raccoon has paid on this account very nearly the amount paid as State tax as above specified.

In Greenup county there were, in June, 1880 :

Of horses	1,772	
Of mules	544	
	<hr/>	2,316
Of Oxen	305	
Of cows	1,839	
Other cattle	3,455	
	<hr/>	5,599
Sheep, exc. of spring lambs		2,934
Swine		10,182

The crops of 1879 were :

Barley	6,598	bushels.
Corn	379,276	"
Oats	44,439	"
Rye	1,909	"
Wheat	63,429	"
Irish potatoes	39,687	"
Sweet potatoes	3,048	"
Tobacco	21,693	pounds.
Hay	1,769	tons.

Value of fertilizers used \$155

The use of oats for feeding horses and working-cattle is not general. Corn on the ear is the common "feed."

Obviously the neat-cattle and sheep got very little hay. The whole crop of 1879 was only enough to give each horse and mule in the county about $5\frac{1}{3}$ pounds per diem for the year.

Still the farmers were not improvident; they raised all the hay needed. The stock-cattle and sheep found a good living in the pastures and wooded ranges.

The soil and climate of this part of the country are well suited to the thrifty growth of tobacco, but until recently no attention had been given to this crop.

Now, however, it is quite largely cultivated and yields handsome returns for all labor expended on it. In 1882 the crop of Greenup county amounted to 153,000 pounds.

In 1880 Kentucky produced 171,120,784 pounds of tobacco. The States next in order as to amount of this crop produced were Virginia, Ohio and Connecticut; but Kentucky harvested 42,352,029 pounds more than the aggregate crop of those three States.

The average yield, per acre, in Kentucky, was 665 pounds. The average in Greenup county is about 1,000 pounds merchantable tobacco, produced at a cost of about \$40 for labor, and yielding net proceeds of about \$33 for ordinary, to \$50 for good article.

Sorghum is a very profitable crop in this region. The yield of heavy syrup is ordinarily 250 gallons per acre, worth something more than \$100 and netting about \$40 to the producer.

Grapes, and all the fruits of the temperate zone grow freely here; and no country is better adapted to the cultivation of the small fruits, particularly raspberries and blackberries.

The apple is extraordinarily thrifty and productive here.

Mr. Sidney Lamar, in a recent article on the "New South," gives a description of the country of which this forms a part, that is exactly applicable to the special tract to present the merits of which this pamphlet is written. He says:

"Surely, along that ample stretch of generous soil, where the Appalachian raggednesses calm themselves into pleasant hills, a man can find such temperances of heaven and earth that a more exquisite co-adaptation of all blessed circumstances for man's life need not be sought. * * All products meet there, as at Nature's own agricultural fair, so that a small farm may miniature the whole United States in growth; the little valleys everywhere run with living waters; all manner of timber for economic uses, and trees for finer arts, cover the earth; in short, here is such a neighborly congregation of climates, soils, minerals and vegetables, that within the compass of a hundred acre farm a man may find wherewithal to build his house of stone, of brick, of oak or of pine;

to furnish it in woods that would delight the most curious eye, and to support his family with all the necessities, most of the comforts, and many of the luxuries of the whole world."

No observant person who, having had experience of other climes and climates, has passed a year in Greenup county, will object to the language just quoted as being extravagantly laudatory of that country.

The writer, who is well acquainted with the region, has striven to confine himself to perfectly plain statements of mere matters of fact. He allows himself here, however, the gratification of declaring his full sympathy with Mr. Lamar's sentiments, and his expression of the same in the manner and form above reproduced.

The spring comes on at Raccoon fully four weeks earlier than in the country no more than 150 miles north therefrom; and roses bloom out of doors until about the middle of November.

In healthfulness Kentucky outranks 27 of the states of the Union. The annual death rate of the State is 1.44 per cent. of the population. In Massachusetts it is 1.86 per cent.

The drainage of the country is perfect. There is not a "swamp," nor body of stagnant water in Greenup county.

While the lands along the Little Sandy, for a distance of some six miles, in a direct line, from the mouth of that river, are subject to overflow by "back-water" from the Ohio, no part of the Raccoon tract is affected by any except the local rainfall, which is never violent nor excessive.

No destructive gale, nor other meteorological disturbance causing damage to property generally, has visited the valley of the Little Sandy within the memory of man.

Windfalls, so common in some timbered regions, are not found in Greenup county timber-lands.

The Raccoon tract has all about it farms owned and occupied by thrifty, well-to-do farmers. It lies in a neighborhood, the record of which as showing it to be the home of a law-abiding community, is not surpassed in excellence by that of any district or precinct in the Union.

The people are good neighbors under any circumstances, but will take special pains to show their good will toward parties coming among them, the effect of whose coming, as they know from earlier experience, will be to benefit the county by increasing its wealth and in many ways promoting its prosperity.

The Raccoon tract, while the central part of it is within an hour's walk of a railroad station, and only about six miles from the populous bank of the Ohio River, is practically entirely secluded. Stock ranging on it are free from any disturbances such as are caused among cattle by the passage near them of railway trains or the travel of a much used highway.

In estimating the capacity of a tract for supporting stock exclusively by grazing, one should base his calculations on the conditions known to exist at those seasons most unfavorable to the supply of the water and food necessary to the proper maintenance of the animals.

In cases where any desired amount of hay may be had for the mere cost of cutting and stacking it, and where at the same time there are ample areas of cleared and fenced lands on which corn, oats, and root crops may be cheaply produced, the farmer may safely calculate on stocking his range more heavily than he would be justified in doing had he no means for economically providing a store of food for use in an extraordinarily severe winter.

In estimating the capacity of the Raccoon lands the above-stated facts have been kept in view.

The 9,000 and odd acres east of Tygart's, outside of the cleared lands, properly apportioned and under the supervision of competent shepherds and stock-men, will, with the hay, oats, corn and root crops of the home farm, of 450 acres, to draw on as needed, handsomely carry when fully stocked, 1,000 head of neat cattle, 1,000 hogs, 100 horses and mules, and 24,000 sheep. The pasturage allotted in this calculation to the 1,000 neat cattle would carry 8,000 sheep; that to the horses and mules, 2,000 sheep, and that to the hogs 2,000 sheep.

So the aggregate sheep-capacity of the range, were no other stock carried, would be 36,000 head.

Of course each kind of stock would have its separate range and be under charge of proper herdsmen or shepherds.

The hogs find ample food for keeping them in good case and growth through the summer, and in the fall fatten on oak, chestnut and beech mast, of which, in this season of 1883 for instance, there is a superabundant crop, particularly of acorns.

The business of breeding horses, neat cattle and hogs, and of raising mules, may be very profitably carried on at Raccoon in connection with that of sheep farming, or indeed to the exclusion of sheep farming; and will almost certainly largely share the attention of any company or proprietor hereafter acquiring the property; but in order to simplify calculations we will here specifically consider only the subject of sheep farming.

This pamphlet has already assumed somewhat formidable proportions, but on revision of the foregoing pages the writer has not found anything, in his opinion, not pertinent to the inquiry and exposition that he set out to make; and he finds still much to say. He trusts that the reader who has reached this point will have acquired an interest in the matter in hand sufficient to induce him to devote still further time to it.

We are about to make brief digests of some remarks of various students of the natural history, habits, varieties and diseases of the sheep; and of some things that scientists and manufacturers, respectively, have observed in their examinations and practical handling of wool. Those whose knowledge of these matters is sufficient to enable them to safely "skip" this will doubtless do so.

The natural habitat of the sheep is a mountainous region in a temperate climate. The animal is found native in each continent; none of the domestic breeds, however, have been traced to the native mountain sheep of America. Under the influences of tropical climates the wool of the sheep degenerates into hair, and as tropical influences are ap-

proached fleeces diminish in weight and increase in coarseness. All the fine woolled sheep undoubtedly came from that stock of which the modern Spanish merino is the highest type. A mellow softness under the skin, found in a remarkable degree in the Spanish merino, indicates, in any breed, an aptitude for readily fattening.

Of the long woolled sheep the Leicestershire or improved Lincolnshire breed and its varieties are most esteemed.

This sheep has a clean head, without horns; bright, lively eyes, straight, broad and flat back; round body, small bones, thin pelt; a disposition to make fat at an early age, and a fine grained and well flavored flesh. The fleece is abundant and the animal is naturally quiet and not given to roaming about. The wool is not as long as in some other distinctively long-woolled breeds, and is considerably finer than the average of long wool.

The well shaped and good sized sheep now found in Greenup county and the neighboring country, have many of the good qualities of the Leicestershires.

Of the several qualities desirable in wool one can hardly rank any particular one as of the first importance. Time was when fineness was esteemed the prime essential, and now, as always, wools distinctively "fine," if otherwise excellent, bring a considerably higher price per pound than any other. But for reasons that will appear as we proceed, a proprietor situated as one would be at Racoon should not make the production of the finest wools his prime object.

Before the introduction of the perfected processes and machinery of the present day, manufacturers of the higher grade woollen fabrics found difficulties in the way of using long staple wools. This is not now the case except with a special few. So, for the wool-grower, the longer the staple is the better it is, if it be at the same time of a fineness that will render it always readily marketable at good prices. A variation in "fashions" may very considerably affect the demand for a wool of any class or grade; but let fashion in fabrics vary as it may, a high-grade "middling," or medium, wool is always in fashion in the wool markets.

Naturally, the larger sheep carries the heavier fleece. So the farmer will wish to have his sheep as large as may be.

Naturally, again, the larger sheep makes the greater weight of mutton, and for this reason, too, he would breed large sheep.

But while one having at the start animals of the several varieties or breeds necessary to such operations, may, in the course of a few generations, by judicious crossings and selections produce a strain of sheep bearing wool of extreme fineness; or one having extraordinary size; or one particularly excellent as making a mutton of superior fibre and flavor; he cannot develop an animal having each and all of these qualities.

He cannot produce an extraordinarily large sheep yielding an extraordinary weight of extra fine wool, and of mutton of the very best known quality. But he can get a sheep yielding a distinctively heavy fleece of extra "medium" wool, and making a heavy carcase of distinctively good mutton.

The "Raccoon" proprietor's situation and facilities will, as we have seen, enable him to put lambs and sheep into the New York market under the most favorable circumstances as to distance, dispatch and rates; the lambs earlier in the season, and both sheep and lambs in better condition than those of any large operator now engaged in that trade. He will, therefore, naturally engage largely in this traffic, and will wish to establish on his lands a breed of sheep suited to the demands of that trade. This he may do and at the same time maintain a breed that will give him large clips of those high-grade wools of medium fineness that are, as before indicated, always in good demand.

The Greenup county sheep is the result of indiscriminate and undirected intermixtures of the Spanish Merino, introduced into Ohio about 1801; the Leicestershire, brought into this country about 1825; and the sheep of the country generally, a race produced by intermixtures of the stock brought into Virginia in 1609 and that introduced into New England in 1625.

Sheep are remarkably affected by conditions of climate, food, etc.,

and varieties resulting from the operation of such conditions have in some instances maintained themselves independent of any care or skill on the part of breeders. The Greenup variety, whatever its origin, is one exceptionally well suited to serve as the foundation of a breed that shall combine all the qualities that we have indicated as to be desired by the proprietor of Raccoon. Such a sheep may be produced by the breeding of fine woolled bucks with the native ewes, and judicious after-intermixture of selections from the first product.

Wool is roughly classed, by producers and buyers of lots, according to the degree of fineness seen in the fleece, as "fine," "middling," or "coarse."

But the wool of a fleece is not uniform as to fineness and other qualities, and in a subsequent and more exact classification, the wool of each fleece is sorted according to its grade.

A fibre of wool has more or less a twisted or corkscrew form, and its whole stem is more or less minutely serrated. The more twisted and the more minutely and sharply serrated the fibre, the better suited is the wool for use in fabrics in the making of which the operation of "felting" is necessary. When pressed together the loops of the fibres interlace, and the serratures act to prevent the slipping of one fibre on another; thus producing a firm, strong fabric. The qualities described are found in greatest perfection of development and combination in wools of the greatest "fineness;" usually "short" wools. The wools having these qualities, making them fit for use in felted fabrics, such as cloths, hat bodies, etc., are classed as "clothing" wools, and the fabrics made from them are called "woollen" goods. Wools of inferior felting qualities are used in the fabrics known as "worsted" goods, such as flannels, hosiery, carpets, etc., and are classed as "combing" wools. Long combing wools are now, however, largely used in combination with the finer kind, in cloths; and are found to work very well with cotton and other material in the manufacture of worsteds.

The class of clothing wools is sub-divided into at least six grades:

“XX,” “X,” and Nos. 1, 2, 3 and 4 ; and that of combing wools into at least five grades : “Extra,” and Nos. 1, 2, 3 and 4.

For the period of 35 years, from 1827 to 1861, the average price in this country of “fine” wools was $50\frac{3}{10}$ cents per pound; of “medium,” $42\frac{8}{10}$ cents, and of “coarse” $35\frac{1}{2}$ cents. In 1861 the prices were $44\frac{1}{2}$ cents, $39\frac{3}{4}$ cents and $38\frac{1}{4}$ cents.

Prices of wool, in Boston, in August, 1881, were :

FLEECE.

XX, Mich. and Wis.	—@40c.
X, Ohio and Penn.	—@41½c.
No. 1, Ohio	45@47c.
No. 2, washed	—@33c.

COMBING AND DELAINE.

Combing	45@46½c.
Mixed combing	43@45c.
Fine Delaine	—@45c.
Coarse combing	—@41c.
Fine unwashed	29@30c.
Super, pulled	36@37c.
Lambs', pulled	—@40c.
Tub washed	—@42½c.
Scoured	37@70c.
Low scoured	35@45c.

Colorado, Wyoming, Montana and Utah :

Good No. 1 Medium	26@30c.
Good No. 2 Medium	22@25c.
Nevada ungraded	23@28c.

Prices ranged according to quality, as below :

Ohio and Penn.	37½@47c.
Mich and Wis.	33½@46c.
Texas and territories	15 @32½c.
Combing and Delaine	25 @48c.
California, spring	23 @28c.
Unwashed and unmerchantable	21 @32c.

Pulled	20	@47c.
Scoured and tub	35	@77c.
Odds and ends	9	@33 $\frac{1}{3}$ c.

Prices in Philadelphia, September 1, 1883, were :

WASHED FLEECES.

Ohio, Penn. and W. Va., XX	36 $\frac{1}{2}$	to 39c.
“ “ “ “ X	36	to 37c.
“ “ “ “ Medium	39	to 40c.
“ “ “ “ Coarse	31 $\frac{1}{2}$	to 33c.
“ “ “ “ Medium Delaine	42	to 43c.
“ “ “ “ Coarse “	35	to 36c.

UNWASHED—average condition.

Ohio, Penn. and W. Va., Fine	24	to 25c.
“ “ “ “ Medium	29	to 32c.
“ “ “ “ Coarse	23	to 24c.
“ “ “ “ Common and burry	18	to 19c.

PULLED—from washed pelts.

Ohio, Penn. and W. Va., Extra and Merino	30	to 33c.
“ “ “ “ No. 1 and super	30	to 33c.
“ “ “ “ Lambs	28	to 33c.
“ “ “ “ Combing	29	to 33c.

There is no foreign wool that competes in our markets with American medium, but English and Canadian coarse wools come in competition with our products of the same grade.

We may safely estimate that for strictly good unwashed medium fleeces we can command, at Raccoon, at least 27 cents per pound.

Having a sufficient understanding of the nature and objects of the inspection, according to the results of which one wool is classed as “clothing” and another as “combing,” we may proceed to note that wool, whether of the clothing or the combing class, is graded and valued according to the results of tests made to determine its quality in each of the following named particulars, viz: cleanness, color, pliancy and elasticity, evenness of staple, evenness of length, fulness, freeness, soundness, softness and style. The last five terms used as describing

quality are purely conventional, and the term "cleanness" in this connection has a special application.

The examination as to "cleanness," in case of fleeces offered as "washed," is needed to determine, among other things, the degree to which the washing has removed from the wool the "yolk;" which, however necessary to the preservation of the growing fibre, has no marked value in any other direction.

Each follicle in the skin of a sheep, from which a fibre of wool grows, has glands supplying profusely a secretion, commonly called "yolk," which is in fact a soap containing an excess of animal oil. This secretion serves to keep the wool soft and pliant, and to lubricate it so that the serratures may not be worn off the fibres by the friction of one on another as the animal moves. It dissolves freely in warm water, and a thorough washing at the hands of the shepherd would almost entirely remove it from a fleece.

As the facts regarding its nature and office in the economy of the sheep would lead one to expect, the yolk is most abundant in fleeces of the finest wool.

The importance of a close estimate of the degree to which the yolk has been washed out is seen when we consider that in the finest woolled fleeces the weight of the secretion is from 50 to 70 per cent. of the weight of the unwashed fleece. In the coarsest wools the weight of the yolk is from 20 to 25 per cent. of that of the fleece.

The reader will have noticed that in the above quoted prices for unwashed wool the "medium" is rated at a higher price than the "fine." The facts just given suggest the origin of the seeming inconsistency.

An unwashed fleece is, of course, not clean of yolk, but it may rate as "clean" if it is, as it should be, free from dirty tags, as well as from earthy matters and burrs.

Sheep ranging on clean lands that afford plenty of succulent food, and cared for as the wise farmer will care for his flocks; gathered each night on a fresh bedding place and never penned in mucky yards; will yield

fleeces that need no washing to make them clean in the sense of being free from "dirt."

The operation of washing as ordinarily performed is injurious to the sheep, and, while it is very laborious and costly, produces no desirable effect on a fleece that is not dirty.

We assume that the Raccoon proprietor will market his fleeces unwashed.

As to "color"—since to show brilliant dyes well and clearly a wool must be perfectly white, this quality is of course desirable. The desirable qualities of softness, pliancy and elasticity, evenness of staple, and freeness, will be found in a satisfactory degree in none but the fleeces of healthy and thrifty sheep.

That condition of the animal is essential to a secretion of "yolk" in quantity sufficient to maintain the pliancy of the wool. Without the yolk, and in case of disease or unthrifty condition in the sheep, the wool becomes hard and harsh and grows uneven and irregular in size of fibre; entangled and therefore not "free;" and with "joints" or weak places in it and therefore not "sound."

Healthy and thrifty sheep make *good* wool whatever its "class," and with plenty of suitable food and wholesome water, a congenial climate, free range, clean, dry bedding places, freedom from disturbance and annoyances, and careful supervision and tending, sheep will be healthy and thrifty.

Wool is graded as to fulness in accordance with the *closeness* of the growth of the fibres.

As regards grade by "length of fibre," that wool is deemed best in which the fibres are most *uniform* in length. A wool that is *uniformly* fine, white, lustrous, sound and even, has good "style." "Pulled" wool brings usually about 10 per cent. less than "fleece" wool. The Raccoon proprietor will market but little, if any, pulled wool.

Sheep, of whatever variety, reach their best condition as wool bearers when having free and ample range in a temperate climate, with plenty of succulent rather than fattening food.

They will thrive on pasturage where any other animal, a goat excepted, would starve. They are fond of Alpine and aromatic plants and browse on weeds, briars and bushes, seeking such food largely to the neglect of grasses.

For maintaining condition during any exceptionally sleety or otherwise unfavorable spell of winter weather, peas and oats with clean hay and an occasional turnip should be provided.

The wool-producing effect of peas is greater than that of any other food.

A merino buck weighs from 140 to 175 pounds; the ewe 80 to 130 pounds. The first will yield from 10 to 16 pounds washed wool and the latter from 4 to 8 pounds.

The Leicestershire is considerably larger than the merino.

In estimating, as we shall presently do, the results that may be obtained from operating the Raccoon tract as a sheep farm, we shall assume that we commence operations with the average sheep of the region and a stock of selected bucks; and that we breed to improve our flocks in the directions necessary to reach the results herein indicated as desirable.

We shall make the estimate cover five years of operation; and calculate that our fleeces will average 4 pounds each the first year, to 6 pounds each the fifth year; and that we sell our wool the first year at 25 cents and advance year by year to 27 cents per pound. With fairly good management the results will be better than the estimate.

As to increase of flocks we may safely estimate that each ewe will raise a lamb yearly. Of the lambs about half in number will be male and half female.

The female is fit for breeding at the age of one year; the male at eighteen months. The period of gestation is five months. Lambs may be weaned and placed in flocks by themselves at the age of three months. Both male and female may profitably be used for breeding up to the age of 8 years. The animal may be best fattened at the age of about 8 years.

In our estimate possible losses through disease, and from other causes, will be taken into account; but under proper management such losses will be much less in amount than the percentage allowed in the estimate.

Losses through killing by dogs may be entirely prevented.

There is no law for Greenup county making the county liable for damage to sheep caused by dogs. Some counties in Kentucky are thus liable under special enactments, and similar legislation may be had for Greenup county if desired. But the legislation would not prevent the damage. Proper care of the flocks will, however, prevent it.

For purposes entirely distinct from that of guarding the sheep against dogs we should employ for each 600 sheep a shepherd, who, with a colly dog, should be constantly with his flock; guarding and controlling its movements by day, rounding it up into a proper bedding place at night-fall, and watching it by night. The flock thus guarded will suffer no losses from the prowling dog, an animal which, having always a consciousness of the questionable character of his proceedings, is never the bold fellow that he may be when in his master's house-yard.

In Kentucky any person has a right to kill any dog found trespassing; and moreover the owner of the dog is liable for any damage done by the beast, and the owner or harbinger of a sheep-killing dog is liable to indictment, and fine and imprisonment, for keeping such dog.

In Greenup county one very seldom sees a dog except it be with its master, or on its master's premises.

Of each of the several diseases and bodily ills to which sheep are subject the cause has been quite certainly determined.

Of these diseases those that have worked most destruction in England, and elsewhere, are consequent on conditions that produce disease in any animal, the form and direction of action of the disease varying according to the physical peculiarities of the animal.

At Raccoon the natural conditions are unvaryingly wholesome and desirable, and an intelligent management will prevent the growth of

those causes of disease that in the absence of the simple measures needed to prevent such growth will develop themselves anywhere.

The disease known as "fluke," or sheep-rot, has since 1869 caused immense losses of sheep in England.

It is not a contagious disease. It is the effect of an excessively wet season, or of keeping the animals continually on wet ground, where they become infected by a parasite: *Fasciola hepatica*. A fatal disease, caused by an intestinal worm that attacks the liver of the sheep, is also known as "Fluke."

"Apthous fever," "foot and mouth disease," or "murrain," appeared in England in 1839. A contagious, eruptive fever; generally appears in an epizootic, rarely in sporadic form. It is caused by overdriving, bad hygiene, bad food, or abrupt change of food. Hygienic treatment is, alone, curative.

In the front part of each foot of the sheep, and between the hoofs, there is an opening from which issues a sebaceous secretion, one office of which is the lubrication of the opposed members of the hoof.

If the animal is made to stand continuously on wet ground, in low-lying, boggy pastures, or in mucky yards, the gland in the foot becomes inflamed; the secretion is suppressed, or mechanically obstructed, and that most troublesome of all diseases, "foot-rot," follows.

Now, with high-lying, thoroughly drained pastures; good and suitable food and drink in plenty; open and ample range; congenial climate, and freedom from annoying and harrassing disturbances, the "Raccoon" proprietor need suffer no losses of sheep from any one of the above mentioned diseases.

In some situations sheep are very much distressed, during the months of June and July chiefly, by the attacks of a bot-fly, *Cephalemyia*, or *Æstrus ovis*, that seeks to deposit its eggs in the nostrils of the animals.

The *larvæ* of this fly make their way into the frontal and maxillary sinuses of the sheep, causing great irritation and not unfrequently producing the death of the infested animal.

To exclude the fly from its nostril the sheep carries its muzzle close against the ground, and tries to escape from its tormentor by trotting rapidly from knoll to knoll, wherever fortunately for itself it can find a knoll. It seeks, at any rate, the highest points in its pasture. It, perforce, neglects its food, and suffers severely even if it finally evades the fly.

These flies are about one-half inch long, of a grayish color, with a large head and yellow face. They prefer damp situations, and sheep that can reach high, dry, breezy hills almost entirely avoid this pest.

The "screw-fly" that is the bane of stock-raisers in Texas and adjoining territories, is unknown in Greenup county and the region adjacent.

The ear-marking of sheep necessary in some regions as a means of identification of animals in case flocks get mixed, is fortunately uncalled for by any circumstance affecting sheep farming at Raccon.

The capacity of the New York market for absorbing mutton—sheep and lamb—is very well indicated by the fact that the receipts at that market in the week ending March 12, 1883, were 37,323 head.

The prices were :

Sheep—Poor to prime.....	\$5 60 to \$7 25 per 100 lbs.
“ —Extra	7 30 to 7 40 “
Lambs—Poor to choice.....	6 12 to 8 25 “

At Cincinnati, in March, 1883, prices ruled :

Sheep—Common to fair.....	\$3 75 to \$4 75
“ —Good to choice	5 00 to 5 75
“ —Extra	6 00 to ----
Lambs—Yearlings.....	5 00 to 5 75
“ —Extra	6 00 to ----

As a suggestion of what may be done in the way of exports of mutton, and as an indication of the extent to which the London market is reaching out for supplies of that article, we note the recent arrival at Plymouth, Eng., of the "refrigerator" steamer "Sonia," from New Zealand, via the Straits of Magellan, with some 13,000 carcasses of mutton.

Subjoined is an estimate of the articles necessary, and the cost of

same, for a farming outfit sufficient for making a start at Raccoon with a stock of 4,000 sheep :

6 Horses at \$125	\$750 00
3 Wagons at \$80	240 00
1 Cart	50 00
3 Plows at \$10	30 00
2 Harrows at \$12	24 00
1 Grain Drill	75 00
1 Mowing Machine	125 00
1 Reaper and Binder	150 00
Harness, Chains, Hand Tools, &c.	250 00
Repairing 8 houses, and refitting two buildings to serve as stables, etc.	1,000 00
Seed	100 00
Incidental Expenses	300 00
TOTAL	\$3,094 00

This outfit would be sufficient for working about 150 acres of tillage, and taking care of grass land enough to provide ample supply of hay for the original stock of sheep and farm animals and their increase for the first year or two.

A resident general manager should direct the entire business of the Raccoon concern. Under this officer there should be a head farmer having charge of all agricultural operations; a forester having charge of all woodlands; a head shepherd in charge of all flocks, and, on occasion, a head stockman to have charge of herds and horses.

The business of each branch of the concern should be conducted as if it were that of an entirely separate and independent establishment.

The farming department supplying hay and other feed to the stock department, and selling surplus products in other markets, would be, at least, self-supporting. The charges for feed made against the sheep account in the subjoined estimate are ample to cover the cost of farming, and at the same time the farm would have considerable income from the general store, that would be kept for convenience of employees, as well as from sales in outside markets.

We do not purpose going into any estimate of possible profits from cattle, horses and hogs; nor from the store, which would derive a very considerable income from trade with the people of the country about Raccoon. Each of those branches of business would prove handsomely remunerative; but, *revenons a nos moutons*, and see what we can make from these alone in a period of five years.

In order to prepare for the reception of a stock of sheep during summer and autumn, and to provide for wintering the same, we should commence operations at Raccoon in the spring, and begin purchase of stock sheep soon after shearing time.

The operations of our first season of occupation would thus be largely, if not entirely, preparatory.

Having decided to stock the tract with sheep we shall do well to bring the number of animals up to the full capacity of the land as soon as may be, and at the start ought to have about one-sixth of a full stock.

Below is an estimate of what may be done in the five years following the first season of occupation.

The general manager would take charge of affairs as early as March 1st, of the preparatory season. He would begin buying sheep immediately after shearing time.

The estimate of cost of stock is intended to cover price of the animals and the expense incident to purchasing them and delivering them on the lands, other than manager's salary, which is entered in estimate as a separate item.

In the period between shearing time and about the middle of October we should place on the lands 4,000 young ewes and 133 select bucks.

4,000 Ewes at average price of \$3 per hd.....	\$12,000 00
133 Bucks at average price of \$30 per hd.....	3,990 00
	<hr/>
	\$15,990 00

Let the year be taken as ending after shearing time in each season.

ACCOUNT OF STOCK AND SALES.

AFTER FIRST SHEARING.

Original stock—Bucks	133
Ewes	4,000
	<hr/> 4,133 hd.
Increase—Ewe lambs	2,000
Ram lambs	2,000
	<hr/> 4,000
	<hr/> 8,113 hd.

Select 70 bucks for breeding and make 1,930 wethers.

Clip 4,133 fleeces, average 4 lbs. each—16,532 lbs. wool.

Sell 16,532 lbs. wool at 25 cts. \$4,133 00

AFTER SECOND SHEARING.

Wintered stock—Old bucks	133
Yearling bucks	70
Yearling wethers	1,930
Yearling ewes	2,000
Old ewes	4,000
	<hr/> 8,133 hd.
Increase—Ewe lambs	2,000
Ram lambs	2,000
	<hr/> 4,000
	<hr/> 12,133 hd.

Clip 8,133 fleeces, average 4 lbs. each—32,532 lbs.

Sell 32,532 lbs. wool at 25 cts. \$8,133 00

Sell 1,930 yearling wethers at \$5 9,650 00

17,783 00

Select 70 bucks for breeding, leaving 1,930 wethers of this year.

AFTER THIRD SHEARING.

Wintered stock—Old bucks	133	
Two year bucks	70	
One year bucks	70	
One year wethers	1,930	
Old ewes	4,000	
Two year ewes	2,000	
One year ewes	2,000	
	-----	10,203 hd.
Increase—		
Ewe lambs	3,000	
Ram lambs	3,000	
	-----	6,000

		16,203 hd.

Select 100 bucks ; make 2,900 wethers.

Clip 10,203 fleeces, average 6 lbs. each—61,218 lbs.

Sell 1,930 1 year wethers at \$5.50

\$10,615 00

Sell 61,218 lbs. wool at 27 cts.

16,528 86
----- 27,143 86

AFTER FOURTH SHEARING.

Wintered stock—Old bucks	133	
Three year bucks	70	
Two year bucks	70	
One year bucks	100	
One year wethers	2,900	
Old ewes	4,000	
Three year ewes	2,000	
Two year ewes	2,000	
One year ewes	3,000	
	-----	14,273 hd.
Increase—		
Ewe lambs	4,000	
Ram lambs	4,000	
	-----	8,000

		22,273 hd.

Select 130 bucks ; leaving 3,870 wethers.

Clip 14,273 fleeces, average 6 lbs. each—85,638 lbs.

Sell 85,638 lbs. wool at 27 cts.	\$23,122 26	
Sell 2,900 yearling wethers at \$5.50	15,950 00	
	<hr/>	39,072 26

AFTER FIFTH SHEARING.

Wintered stock—Old bucks	133	
Four year bucks	70	
Three year bucks	70	
Two year bucks	100	
One year bucks	130	
One year wethers	3,870	
Old ewes	4,000	
Four year ewes	2,000	
Three year ewes	2,000	
Two year ewes	3,000	
One year ewes	4,000	
	<hr/>	19,373 hd.
Increase—Ewe lambs	5,500	
Ram lambs	5,500	
	<hr/>	11,000

30,373 hd.

Select 200 bucks ; leave 5,300 wethers.

Clip 19,373 fleeces, average 6 lbs. each—116,238 lbs.

Sell 116,238 lbs. wool at 27 cts.	\$31,384 26	
Sell 3,870 yearling wethers at \$5.50	21,285 00	
Sell 4,000 fat old ewes at \$6.00	24,000 00	
	<hr/>	76,669 26

Aggregate sales\$164,801 38

STOCK LEFT ON HAND.

Write off 133 old bucks.

370 bucks worth average \$30.00 each	\$11,100 00	
200 buck lambs worth average \$10.00 each	2,000 00	
5,300 young wethers worth average \$3.00 each	15,900 00	
11,000 ewes worth average \$5.00 each	55,000 00	
5,500 ewe lambs worth average \$2.50 each	13,750 00	
	<hr/>	
22,370 head, worth		\$97,750 00

Aggregate sales and stock\$262,551 38

The employees named in subjoined estimate of expenses would receive, in addition to pay specified, free use of house, and lands for kitchen garden, and free access to fuel, both wood and coal.

EXPENSES FIRST YEAR.

Sheep farm's proportion of salary of General Manager, 1 $\frac{1}{4}$ year	\$2,500 00	
Salary of head shepherd 1 year	600 00	
Pay of three shepherds 3 mos., six 6 mos. and fourteen 3 mos., at \$40 per mo. each	3,480 00	
Feed of 4,133 head of sheep first winter	1,240 00	
Salt and incidentals	400 00	
	<hr/>	\$8,220 00

EXPENSES SECOND YEAR.

General Manager and head shepherd	\$2,600 00	
Fourteen shepherds 6 mos., twenty 6 mos. at \$40 per mo. each	8,160 00	
Feed of 8,133 sheep second winter	2,440 00	
Salt and incidentals	800 00	
	<hr/>	\$14,000 00

EXPENSES THIRD YEAR.

General Manager and head shepherd	\$2,600 00	
Twenty shepherds 6 mos., twenty-seven 6 mos. at \$40 per mo. each	11,280 00	
Feed of 10,203 head third winter	3,061 00	
Salt and incidentals	1,020 00	
	<hr/>	\$17,961 00

EXPENSES FOURTH YEAR.

Salaries	\$2,600 00	
Twenty seven shepherds 6 mos., thirty-two 6 mos. at \$40 each per mo.	14,160 00	
Feed of 14,273 head fourth winter	4,282 00	
Salt and incidentals	1,427 00	
	<hr/>	\$22,469 00

EXPENSES FIFTH YEAR.

Salaries	\$2,600 00
Thirty-two shepherds 6 mos., thirty-seven 6 mos. at \$40 each per month	16,560 00
Feed of 19,373 head fifth winter	5,812 00
Salt and incidentals	2,000 00
	<u>\$26,972 00</u>

Using power clipping machines the shepherds can shear each
his own flock with assistance of helper during about ten
days of each season.

1,020 days work of helpers at \$1.50 per day	\$1,530 00
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Total expenses above named	\$91,152 00
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Add for losses and incidentals, 5 per cent.	4,557 60
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Add State and County taxes on whole property—

First year	\$350 00
Second year	450 00
Third year	500 00
Fourth year	600 00
Fifth year	700 00
	<u>2,600 00</u>

Aggregate expenses	\$ 98,309 60
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Aggregate of sales	164,801 38
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Balance, net proceeds of sales	\$ 66,491 78
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Amount credited to Agricultural Department for

feed	\$16,835 00
Proportion of incidentals	1,231 00

Aggregate in five years	\$18,066 00
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TOTAL INVESTMENT.

In lands, say	\$88,000 00
In sheep	15,990 00
Add incidentals	1,500 00
	<u>\$105,490 00</u>
Net proceeds of sales	\$66,491 78
Value of stock on hand at close of 5 years	97,750 00
	<u>\$164,241 78</u>

According to this estimate the net proceeds of sales of wool and sheep during the period considered would pay more than $12\frac{1}{2}$ per cent. annually on the total original investment, while the stock on hand at close of the 5 year period would be worth a sum very nearly as great as that originally invested in lands and stock.

For the sixth year the sales of wool (from stock remaining after selling the 4,000 old ewes and the 3,870 yearling wethers in the fifth year) would amount to \$36,239 40, and sales of 5,300 yearling wethers to \$26,500; in all, \$62,739 40.

Add to the profits of the sheep farm the income that may be derived from the timber-lands and we have a very handsome return for our investment.

The farm during the period named will have paid cost of operation (about \$15,000 for the five years) and interest on cost of plant, from its sales to the sheep-farm alone; and from outside sales will have accumulated a considerable credit balance.

Finally under competent management, results even better than those indicated by the estimate may be secured.

The yield of wool will be larger than that counted on in the estimate, and prices obtained for it will be higher than those named.

Under the conditions existing at the Raccoon tract, and with the corps of shepherds provided for in the estimate, losses of stock should be insignificant. Every shepherd should be held responsible for the animals placed in his care.

The allowance for losses, made in the estimate, is, we believe, more than sufficient.

As before suggested, parties becoming proprietors of the Raccoon Lands will do well to adopt the charter of the existing Raccoon Company. Should they see objections to doing this they may organize under the general law of Kentucky, authorizing any number of persons to form a corporation for any purpose except building railroads or doing a banking or insurance business.

The provisions of this law are very liberal See General Statutes of Kentucky, chapter 56, p. 546, *et seq'r.*

Under the existing Raccoon charter there is no personal liability of stockholders beyond payment of subscription ; and there is no general law making any such liability.

See Appendices for letters, etc., hereinbefore mentioned as to be therein given.

Under authority of the Raccoon Company the "Raccoon Lands" herein described (and as shown by the accompanying map) are, for a limited time, offered for sale by the undersigned, who is prepared to make a very low price for the property for cash.

For further information, address

J. M. GOODWIN,

October, 1883.

Sharpsville, Mercer Co., Pa.

APPENDIX A.

SHARPSVILLE, MERCER CO., PA., }
 October 1st, 1883. }

MR. J. M. GOODWIN :

Dear Sir—In the latter part of January of this year I visited West Virginia and Eastern Kentucky, and at your request made an examination of the Raccoon property in Greenup county, Ky., with a view particularly to its fitness for use as a sheep farm and stock range.

I did not attempt an inspection of every part of the extensive tract, but gave my attention to getting a fair idea of the character of the property and "lay of the land" generally, the extent and boundaries of the tract, the quality of the soil, the amount and character of the timber on the lands, the supply of water for stock, the quality of the native grasses, the area of tillage and meadow, and the capacity of the property as a whole for supporting stock.

As to the climate of the region and its position in relation to lines of transportation, I was sufficiently well informed before my visit.

I have recently read with attention the manuscript of your pamphlet descriptive of the Raccoon tract, and with the stipulation of the fact that I have not given much attention to the geology of the region, nor to those matters of population, products and railway distances, concerning which you give statistics, can and do fully indorse everything you say of the Raccoon Lands and of the region in which they lie, and believe that your estimates of the capacity of the tract treated as a sheep ranch, and of the value of the timber on it, are entirely warranted by the facts in the case.

Yours truly,

WILLIAM CARNES.

Mr. Carnes is well known in Western Pennsylvania as a practical farmer, stock raiser and handler of wool. He is also largely engaged in the manufacture of hard wood lumber in Mercer county and thereabout.

J. M. G.

APPENDIX B.

GREENUP, Ky., March 8, 1883.

To whom it may concern :

I have been engaged in the practice of the law in Kentucky for over thirty years, except six years of the time I was judge of the 16th judicial district.

I am well acquainted with the title of the Raccoon Mining and Manufacturing Company to its lands in Greenup county, Ky. My opportunities and investigation of the title have been such that I have no hesitation in saying that the company have a good legal title—it is beyond question or dispute in my judgment. It has been so held many years ago by the Court of Appeals of the State, being court of last resort.

W. C. IRELAND.

APPENDIX C.

AN ACT TO INCORPORATE THE RACCOON MINING AND
MANUFACTURING COMPANY.

Be it enacted by the General Assembly of the Commonwealth of Kentucky :

SECTION 1. That Columbus Kirtley, James C. McGrew, Robert D. Barr, Elizabeth Barr, Mary E. Barr, their associates and successors, are hereby incorporated and made a body politic by the name and style of "The Raccoon Mining and Manufacturing Company," and by that name may sue and be sued, plead and be impleaded, in all courts and places ; contract and be contracted with in all matters pertaining to the business and objects of the corporation, and do any and all acts which a corporation incorporated for similar purposes may or can do in fulfillment of its charter, and the object and ends of its organization ; may have a common seal which may be changed and altered at the pleasure of the company.

SEC. 2. The objects and purposes of the incorporation of said company shall be the mining for coal, iron ore, and any and all other mineral substances, or the direct products of the earth, or any and all of them, and the manufacture and refining of any or all of them, and transportation to market of the same.

SEC. 3. The location and field of mining and manufacture of said company shall be Greenup county.

SEC. 4. The capital stock of said company shall be one hundred thousand dollars, to be increased by a vote of the majority of the members to any sum not exceeding five hundred thousand dollars, to be divided into shares of one hundred dollars each, which shall be personal property, and assignable in such manner as may be prescribed by the by-laws of the company; and lands and other real estate, mines and mining rights, may be subscribed as a part or the whole of said stock, upon such terms as may be agreed upon by the subscribers and the company.

SEC. 5. The stock, property, and general prudential affairs of said company shall be managed by a board of not less than three nor more than seven directors, to be chosen for one year by the stockholders; and every stockholder shall have one vote for each share owned by him, her or them; provided, the directors first elected shall hold their office for the remainder of the current year; and provided, further, that a President of the board shall also be elected by the directors from among themselves, or the stockholders, who shall hold his office for the same term with the directors. The president and directors shall be stockholders of the company and they may appoint such other officers and agents and employes as they may deem proper. A majority of the directors shall constitute a quorum.

SEC. 6. The company shall keep a book which shall be open to the inspection of the stockholders, and each of them, at all times, in which shall be kept the names and amount of stock held and owned by each stockholder, and the amount paid in; also a book in which shall be kept a full and faithful account of the proceedings, elections, rules and

by-laws and acts of said company, except its accounts and contracts with individuals.

SEC. 7. The president and directors may make such by-laws as they may deem proper, prescribing the times, places, and manner of holding elections, the transferring of stock, the forfeiture thereof for non-payment, the time and manner of payment, the duties of officers, agents, and employees, their authority and powers, filling vacancies in office, the character, kind and amount of business, and all such as may be necessary for the proper prudential and effective management of the property and business of the corporation, and the objects and interest of its creation, provided the same are not repugnant to this act, the constitution and laws of this State and of the United States.

SEC. 8. Said company shall have power to take, acquire, and hold lands, mines, and mining-rights, as they may deem necessary for the uses of said company, and all such personal property, machinery, boats, floats, &c., as may be necessary, and to dispose of, for the use of the company and the stockholders, any or all of the same.

SEC. 9. The company shall have power to build and construct a railway or tramway, one or more, from their mines and lands to any railway or tramway, or to the Ohio River, or any other navigable river of the State; provided for the condemnation of the right of way or lands for said purposes the same proceedings shall be had as prescribed by the revised statutes for the condemnation of lands for the use of turn-pike and plank roads; and provided the same shall not obstruct any public highway or navigable stream.

SEC. 10. This act shall be in force from its passage.

Approved: March 16, 1869.

The act was accepted, and the company organized, March 25, 1870. Capital stock was increased to \$124,000. Time of annual meeting is now the third Saturday of December.

Edward F. Dulin was chosen president at the annual meeting of Dec. 21, 1872, and now holds that office.

The entire stock is now in the hands of Mr. Dulin, W. J. Worthington, and R. D. Barr, all of Greenup, Ky.

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